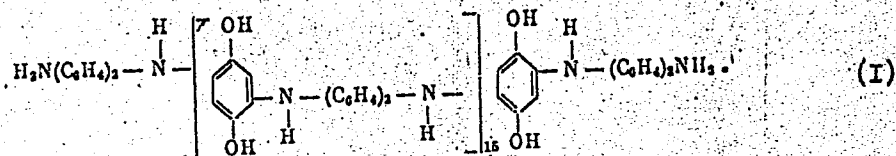
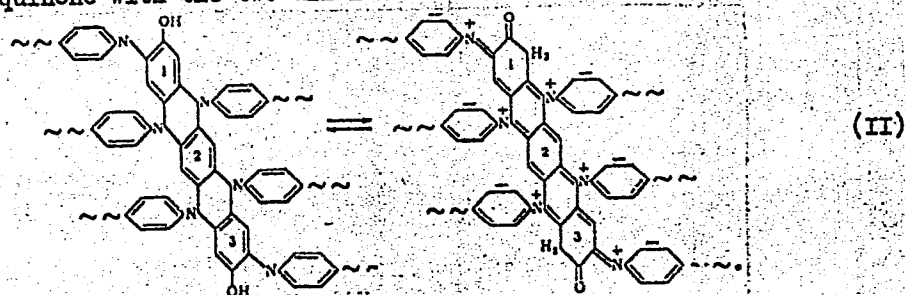


L 17830-63

ACCESSION NR: AP3004708



Elemental analysis and water yields suggested that the dehydration product (II) is a polyaminoquinone with the two-dimensional network structure:



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L 17830-63

ACCESSION NR: AP3004708

Polymer II is insoluble and infusible up to 500C. Polymers I and II both emit an EPR signal. On conversion of I to II, the signal shape — a narrow symmetrical singlet without a hyperfine structure — does not change, but the number of unpaired spins increases from 3×10^{17} to $4.2 \times 10^{19}/g$, conductivity (σ) at 300K rises from 1×10^{-15} to $8 \times 10^{-8} \text{ ohm}^{-1}\text{cm}^{-1}$, and activation energy (E) of conduction drops from 21.25 to 8.30 kcal. Since paramagnetic impurities are excluded in polymer synthesis, the paramagnetism of I and II is evidently due to their structure, i.e., is a result of the formation of a charge-transfer complex between identical molecules. The temperature dependence of conductivity follows the exponential law. The drop in E on conversion of I to II is evidently due to chain ordering, which facilitates electron transfer. The σ of II can be enhanced by formation of a charge-transfer complex with a bromine molecule. For example, at 0.10 mol bromine per repeat unit of II (see formula) and 20—170C, σ is $1 \times 10^{-2} \text{ ohm}^{-1}\text{cm}^{-1}$; at 0.11 mol bromine and 20—200C, σ is 3×10^{-4} . Hence, the results obtained are satisfactory, but only for a limited temperature range. Orig. art. has: 2 formulas, 2 figures, and 3 tables.

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR (Institute of Chemical Physics, AN SSSR)

Card 3/43

PSHENITSYNA, I.F.; VYSKUBOVA, M.M.; SEMENOV,
OSORGIN, A.V.; LAVROVA, I.V.; PSHENITSYNA, I.F.; VYSKUBOVA, M.M.; SEMENOV,
M.N., red.; ROROKINA, Z.P., tekhn. red.

[Problems in the comprehensive development of transportation in the
virgin and fallow land region of northern Kazakhstan] Voprosy kom-
pleksnogo razvitiia transporta v raionakh osvoeniia tselinnykh i
zaleznykh zemel' Severnogo Kazakhstana, Alma-Ata Izd-vo akad. nauk
Kazakhskoi SSR, 1957. 107 p. (Akademiia nauk Kazakhskoi SSR, Alma-
Ata Institut ekonomiki. Trudy, vol. 1). (MIRA 11:3)

(Kazakhstan--Transportation)

Pshenitsyna, K.A.
PSHENITSYNA, K.A.

Resuscitation of the newborn after severe asphyxia by means of an apparatus for artificial respiration. Akush. i gin. 32 no.6:33-37 N-D '56. (MIRA 10:11)

1. Iz 1-y gorodskoy klinicheskoy bol'nitsy imeni N.I.Pirogova (glavnyy vrach - zasluzhennyy vrach respubliky L.D.Chernyshov) i akushersko-ginekologicheskoy kliniki (zav. - prof. I.F.Zhordania) lechebnoyo fakul'teta II Moskovskogo meditsinskoy instituta imeni I.V.Stalina.

(ASPHYXIA NEONATORUM, ther.

resuscitation, use of appar. for artif. resp.)

(RESPIRATION, ARTIFICIAL, appar. and instruments use in resuscitation in asphyxia neonatorum)

PSHENITSYNA, M.F.

Permeability of the vascular and connective tissue structure
in hypertension and its modification under therapy. Zdrav.
Kazakh. 17 no.1:14-19 '57. (MIRA 12:6)

1. Iz kafedry propedevtiki vnutrennikh bolezney (zav. - prof.
M.A.Brener) Kazakhskogo gosudarstvennogo meditsinskogo instituta
im. V.M.Molotova.

(TISSUES--PERMEABILITY) (HYPERTENSION) (SLEEP--THERAPEUTIC USE)

PSHENITSYNA, M.F. Can Med Sci -- (diss) "Penetrability of Vascular *connective*
tissue ~~in~~ Structures in Hypertonic Disease and Nephritis."

Alma ~~Ata~~ Ata, 1958, 16 pp (Kazakh State Med Inst). 400 copies.

(KL, 10-58,122).

PSHENITSYNA, V.P.

PRIKHOT'KO, A.F.

24(7) p 3 PHASE I BOOK EXPLOITATION SOV/1365
L'vov. Universitet

Materialy I Vsesoyuznogo soveshchaniya po spektroskopii. t. 1: Molekulyarnaya spektroskopiya (Papers of the 10th All-Union Conference on Spectroscopy. Vol. 1: Molecular Spectroscopy) [L'vov] Izd-vo L'vovskogo univ-ta, 1957. 499 p. 4,000 copies printed. (Series: Its: Fizichnyy zbirnyk, vyp. 3/8/)

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po spektroskopii. Ed.: Jazer, S.L.; Tech. Ed.: Saranyuk, T.V.; Editorial Board: Landsterg, G.S., Academician (Resp. Ed., Deceased), Neporent, B.S., Doctor of Physical and Mathematical Sciences, Pabelinakiy, I.L., Doctor of Physical and Mathematical Sciences, Pablikovskiy, V.A., Doctor of Physical and Mathematical Sciences, Kornitskiy, V.G., Candidate of Technical Sciences, Rayskiy, S.M., Candidate of Physical and Mathematical Sciences, Klimovskiy, L.K., Candidate of Physical and Mathematical Sciences, Miliyanchuk, V.S., A. Ye., Candidate of Physical and Mathematical Sciences.

Card 1/30

Savinov, B.G. Use of Infrared Absorption Spectra in Determining the Characteristics of the Products of Vitamin E Synthesis

265

Belyy, M.U. Optical Method for the Determination of the Composition of Complexes in Solutions

267

Bogomolov, S.G., M.P. Grebenahohikova, and I. Ya. Liplavk. Analysis of Phenol-naphthalene Mixtures by Means of Ultraviolet Absorption Spectra

270

Zimina, K.I., and A.G. Siryuk. Group Determination of the Naphthalene Hydrocarbons by Means of Ultraviolet Absorption Spectra

272

Shabadash, A.N., V.P. Pshenitsyna, and V.M. Khisheva. Spectrophotometric Methods of Phase Control in Processing Acetic Anhydride

275

Neporent, B.S., K.P. Vasilevskiy, and N.A. Lapina. Qualitative Absorption by Means of Water Vapor in Near Infrared Region

Card 18/30

SHABADASH, A.N.; PSHENITSYNA, V.P.; KHISHMVA, V.M.

Spectrophotometric method for vapor-phase analysis of the acetic anhydride production. Fiz. sbor. no.3:275-277 '57. (MIRA 11:8)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut promyshlennosti plasticheskikh mass.
(Acetic anhydride—Spectra) (Spectrophotometry)

PSHENITSYNA, V.P.; SHABADASH, A.N.; FREMEL', T.V.

Association phenomena in solutions of phenol formaldehyde
novolak resins of orthoregular structure. Dokl. AN SSSR 153
no.3:650-652 N '63. (MIRA 17:1)

1. Nauchno-issledovatel'skiy institut plasticheskikh mass.
Predstavleno akademikom V.A. Karginym.

PSHENITSYNA, V.P.; SHABADASH, A.N.

Spectroscopic analysis of the products of condensation of
para-substituted phenols with formaldehyde. Plast.massy
no.3:57-59 '64. (MIRA 17:3)

L 33508-65 EPF(c)/EWT(m)/EWP(j)/I Pc-4/Pr-4 RM

S/0190/65/007/001/0055/0062

ACCESSION NR: AP5003828

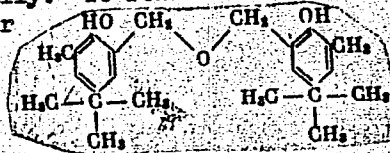
AUTHORS: Ginzburg, L. V.; Sherahnev, V. A.; Pshenitsyna, V. P.; Dogadkin, B. A.

TITLE: Reaction of unsaturated elastomers with phenolformaldehyde derivatives under vulcanizing conditions

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 1, 1965, 55-62

TOPIC TAGS: butyl rubber, vulcanization, IR analysis/ IKS 14 IR apparatus, I 800 IR apparatus

ABSTRACT: An IR study ($700-2000\text{ cm}^{-1}$ on an IKS-14 apparatus, $2000-4000\text{ cm}^{-1}$ on an I-800 apparatus) was conducted on the reaction products of unsaturated rubbers (SKD) and of butyl rubbers with 2,6-dimethylol-4-tert.-butylphenol (DMF), with and without $\text{SnCl}_4 \cdot 2\text{H}_2\text{O}$. The IR spectra of SKD and butyl rubber containing 12 parts (by weight) of DMF are shown graphically. To relate the structural kinetics to the consumption of ester groups, the ester was introduced into the



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ACCESSION NR: AP5003828

rubbers (dissolved in CCl_4). It was found that the degree of structurization could be expressed as

$$N_e = -3,5 \cdot 10^{18} \lg \frac{c}{0,3} \text{ cm}^{-3}$$

$$N_e = -2,0 \cdot 10^{18} \lg \frac{c}{0,3} \text{ cm}^{-3} \quad (\text{where } c = \text{ester group concentration, mol/l})$$

for initial DMF concentration of 12 and 6 parts by weight respectively. To show that the radical processes, which develop during structurization, end when an equilibrium degree of structurization is reached, a free radical acceptor (2-mercaptobenzothiazole, MBT) was added to the rubbers. During the initial stages, MBT decreased the degree of structurization, but had no effect after equilibrium was reached. The addition of $SnCl_2 \cdot 2H_2O$ significantly increased the vulcanization rate (at temperatures above $160^\circ C$ by orders of magnitude), but no esters could be found, and the concentration of phenolic hydroxyl decreased by 50% after 15 minutes at $160^\circ C$. This indicates the possibility of chromanic structures as well as an interaction of DMF with α -methylene hydrogen from the rubber. Orig. art. has: 3 figures.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. B. Lomonosova (Moscow Institute of Fine Chemical Technology)

Card 2/3

L 33508-65

ACCESSION NR: AP5003828

SUBMITTED: 03Mar64

ENCL: 00

SUB CODE: 00

NO REF SOV: 002

OTHER: 009

Card 3/3

L 08799-67 EWT(m)/EWP(j) (IJP(c)) RM
ACC NR: AP6030852 (A, N) SOURCE CODE: UR/0191/66/000/009/0042/0045

AUTHOR: Chibisova, Ye. I.; Kovarskaya, B. M.; Pshenitsyna, V. P.; Puzakova, Z. A.;
Kaganova, Ye. L.

ORG: none

TITLE: Degradation of unsaturated polyesters

SOURCE: Plasticheskiye massy, no. 9, 1966, 42-45

TOPIC TAGS: polyester resin, pyrolysis, oxidation, polyester plastic, phthalic anhydride, synthetic material

ABSTRACT: The kinetics of thermal and oxidative degradations of polyesters based on ethylene glycol and maleic anhydride and on dichlorohydrin pentaerythrite and maleic- and phthalic anhydrides were studied. The kinetics of thermal degradation were studied in the 200-400°C range by following the pressure drop in the system and by IR spectroscopy. Oxidative degradation was studied in the 180-240°C range and at an initial oxygen pressure of 200-500 mm Hg. The low values of the activation energy of thermal degradation in all polyesters indicate that the process proceeds via a complex mechanism. The involvement of the free radical type intermediates in the thermal degradation is suggested. The IR spectra indicate that thermal degradation in polyesters involves the cleavage of the C-O bonds of the ester groups. The IR spectra showed that the

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UDC: 678.019.3 : [678.674'64'522'448+
+678.674'522'448'420

L 08799-67

ACC NR: AP6030852

products of the oxidative degradation of the polyesters contain acetaldehyde, formaldehyde, benzaldehyde, and maleic anhydride. It is concluded that the oxidative degradation mechanism in polyesters involves an attack of oxygen on the α -carbon of the styrene-group and the subsequent formation of hydroperoxide-type intermediates. Unsaturated compounds were also detected in the products of oxidative degradation of the polyesters. Orig. art. has: 7 figures and 1 table.

SUB CODE: 07// SUBM DATE: 00/ ORIG REF: 003/ OTH REF: 005
///

Card 2/2 nat

PSHENITSYNA, Ye.A.

Rupture of a large umbilical vessel in membranous attachment of the umbilical cord. Akush.i gin. 34 no.3:103-104 My-Je '58.

(MIRA 11:6)

1. Iz Noginskogo rodil'nogo doma (glavnyy vrach P.M.Kurchin). Zaveduyushchaya rodil'nyy otdeleniyem Noginskogo rodil'nogo doma.

(LABOR, compl.

rupt. of large umbilical vessel (Rus))

(UBILICAL CORD, blood supply

rupt. of large vessel during labor (Rus))

AUTHOR: Pshenko, A.M., Engineer

28-6-4/40

TITLE: Unification and Normalization of Instruments and Means of Automation (Unifikatsiya i normalizatsiya priborov i sredstv avtomatizatsii)

PERIODICAL: Standartizatsiya, 1957, # 6, pp 13 - 15 (USSR)

ABSTRACT: The article treats the present position and future developments in the Soviet production of instruments and automation devices.

Thus far there were no fixed limits for dimensions, fits and tolerances, threads, etc., and designers were free to choose these elements. This has led to a great multiplicity of devices identical in purpose but non-interchangeable. This is illustrated by the examples of the plants "Komega", "Energopribor", the Moscow plant "Manometr", the Chelyabinsk "Teplopribor", the Ufa Plant of Low-Voltage Devices, the Tomsk "Manometr", the plants "Elektropul't" and "Il'marine". Instances of non-compliance to state standards which cause difficulties in assembly are cited.

There is no standard for drawings, and this handicaps the specialization of plants, for when a new instrument type is to be produced, the amendments of drawings take so much time that it takes 1 to 1½ years instead of normal 3 months

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Unification and Normalization of Instruments and Means of Automation 28-6-4/40

to get the unit into production.

The Special Designing Bureau for Standardization and Normalization of Instrument (SKB Standartizatsii i normalizatsii priborostroyeniya) created in 1957, will issue "Basic Design Norms" based on the state standards and the experience of leading plants. The normalization experience of the radio, shipbuilding and aircraft industries will be utilized.

AVAILABLE: Library of Congress

Card 2/2 1. Industry-USSR 2. Instrumentation-Standards 3. Automation-Standards

Pshenko, N M

28-58-2-1/41

AUTHOR: Pshenko, A.M., Engineer

TITLE: A Knowledge of Standardization -for Every Specialist
(Znaniya standartizatsii - kazhdomu spetsialistu)

PERIODICAL: Standartizatsiya, 1958, Nr 2, pp 3-6 (USSR)

ABSTRACT: The author outlines the present state of standardization in the USSR (8,000 All-Union state standards apart from the standard specifications of the individual republics and normal's" of separate industry branches) and points out the results of the lack of coordination and special knowledge of standardization on the part of technicians. For instance: 2,918 transformers of different design and size have been developed, while 70 would have been sufficient. Mentioning that in the US, Germany, Britain, Czechoslovakia and other countries, standardization is being taught in technical schools, he says that it is time to add an obligatory standardization course to the programs of the Soviet medium and higher technical schools. The necessary special literature (which does not yet exist) must be provided. Practical organizational suggestions are made.

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A Knowledge of Standardization -for Every Specialist 28-58-2-1/41

The editor suggests that workers of scientific institutes, technical schools, scientific-technical societies, industry, sovnarkhozes, and the Ministry of Higher Education express their opinions on this subject.

AVAILABLE: Library of Congress

Card 2/2 1. Technical standardization-USSR 2. Industrial standardization-USSR

PSHENKO, A.M., inzh.

Unification and standardization of instruments and equipment used
in automatic control. Standartizatsiia no.6:13-15 N-D '57.

..RA 10:12)

(Automatic control--Standard

PSHENKO, A.M.

119-6-8/16

AUTHOR:

Pshenko, A. M.

TITLE:

Concerning the Problem of the Standardization and
Normalization in the Construction of Apparatus
(K voprosu ob unifikatsii i normalizatsii v priborostroyeni).

PERIODICAL:

Priborostroyeniye, 1957, Nr 12, pp. 22-24 (USSR)

ABSTRACT:

The removal of the different types of devices with equal destination produced in various offices and factories, as well as the standardization and normalization of the component parts and joints of the devices, all this seems to be the main condition of the reduction of manufacturing expenses, the increase in manufacturing, the transition from small to large series and to mass production. Practice in the ministries of the shipbuilding, the radiotechnical and the aviation industry showed that the introduction of norms guarantees a production of good quality. In this respect the situation is worse in the enterprises which formerly belonged to the domain of the Ministry for Construction of Apparatus and Means of Automatic Control and others. The majority of these enterprises completely lack restrictive norms so that the designers have a free hand, which leads to a variety of dimensions and designs which may be nothing but justified.

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Concerning the Problem of the Standardization and
Normalization in the Construction of Apparatus

119-6-8/16

Further the author gives some examples which characterize the present state in this respect. Figure 1 shows electronic regulating devices produced by the factories "Kometa" and "Energopribor" with quite different over-all dimensions and cost of production which can only be explained by the fact that each of these types was designed and produced by a different ministry. In figure 2 electronic bridges of the type ЭМР of the Moscow factory "Manometr" and of the Chelyabinskiy works of the former Ministry for Metallurgy are represented. The technical characteristics of the two devices are equal, the outer shape and dimensions quite different. Figures 3 and 4 give two examples of this kind for control keys and a standard relay of the type РУС. In february 1957 the Special Design Office for the Standardization and Normalization of the Construction of Apparatus (SKBCN) was founded which now intends to issue uniform construction norms and a guide to them. For the performance of this work it is intended to utilize the great experience of the radiotechnical, shipbuilding and aviation industry. It is also intended to introduce an

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Concerning the Problem of the Standardization and
Normalization in the Construction of Apparatus

119-6-8/16

official system of norms for the making of drawings which is effective in the above-mentioned industries. It will be necessary to work out about 1500 norms, 800 instructions and 100-150 standards in 2 to 3 years. The branch department for standardization and normalization as well as the leading scientific research institutes of the construction of apparatus: NIISchetmash, NIITeplopribor, VNITIPribor and TsNIIKA also play an important part in the organizational structure of the official normalization. Their experimental introduction in one or more factories is to be considered an obligatory condition of the publication of branch-norms. It is necessary to draw upon scientists, rationalizers and renewers of the manufacture for the work of standardization and normalization. In the periodical "Priborostroyeniye" it is suggested to introduce a column for the standardization and normalization. There are 4 figures.

AVAILABLE: Library of Congress.

Card 3/3

PSHENKO, M. M.

Metallic filling machine MZ-1 Moskva, Ugletakhizdat, 1952. 54 p. (53-31065)

TN292.P8

PSHENKO, M. M.

Coal Mines and Mining

Forming a massive block with pneumatic filling. Ugol', No. 1, 1952

Monthly List of Russian Accessions, Library of Congress, March 1952. UNCLASSIFIED.

S/169/63/000/001/028/062
D218/D307

AUTHOR: Pshennikov, K.V.

TITLE: Some properties of earthquake aftershocks in the Transbaykal and Mongolia

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 1, 1963, 8-9, abstract 1G56 (Geologiya i geofizika, 1962, no. 4, 119-121)

TEXT: A study was made of the aftershocks of six earthquakes in Transbaykal and Mongolia with $5 < M \leq 7^{3/4}$. It is shown that the energy of the maximum aftershock is on the average lower by three orders of magnitude as compared with the energy of the main earthquake (the energy of the main event and of aftershocks was determined from the values of M taken from the Bulletin of Seismic Stations of the USSR, using the formula $\lg E_{\text{erg}} = 12 + 1.8 M$). On the basis of a study of the volume of the aftershock focus zone, it was shown that as the energy of the earthquake increases, there is an increase in the volume of the aftershock focus, while the ratio E/D

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APPROVED FOR RELEASE: 06/15/2000

S/169/63/000/001/028/062
D218/D307

CIA-RDP86-00513R001343510010-3

Some properties of earthquake

remains constant (to within experimental error). The slopes of recurrence graphs for aftershocks is $\gamma = 0.60$, while according to the data of S.L. Solovyev the slope for the Transbaykal earthquakes is $\gamma = 0.4$, i.e. in aftershock series, the 'specific weight' of weak aftershocks is much greater than in the course of a normal seismic process. The total energy of aftershocks is smaller than the energy of the main shock by many hundreds of times (between 0.2 and 1%). Analysis of observations on weaker Transbaykal earthquakes showed that earthquakes with energies of $10^{17} - 10^{20}$ erg are frequently unaccompanied by aftershocks.

[Abstracter's note: Complete translation]

Card 2/2

PSHENNIKOV, K.V.; BOROVNIK, N.S.

Some characteristics of the formation of an epicentral zone of
aftershocks. Geol. i geofiz. no.3:128-131 '65.

(MIRA 18:6)

1. Institut zemnoy kory Sibirskogo otdeleniya AN SSSR, Irkutsk.

L 20468-66 ENT(1)/EWA(h) GW
ACC NR: AP6012053

SOURCE CODE: UR/0210/65/000/009/0127/0130

AUTHOR: Borovik, N. S.; Pshennikov, K. V.

ORG: Institute of the Earth's Crust, Siberian Department, AN SSSR, Irkutsk (Institut zemnoy kory Sibirskogo otdeleniya AN SSSR)

TITLE: Comparison of epicentral zones of aftershocks with the principal relief elements and stresses at the foci of their main shocks

SOURCE: Geologiya i geofizika, no. 9, 1965, 127-130

TOPIC TAGS: earthquake, tectonics, shock wave

ABSTRACT: A study was made of the epicentral zones of aftershocks of a number of strong earthquakes in different parts of the world as published by foreign and Soviet authors. The epicenters of aftershocks on the earth's surface usually form an elongated region. In most cases the longer axis of this region is oriented parallel to the principal relief elements, such as the axis of a mountain system or a tectonic depression, the sea coast or chains of islands. In most cases the epicenter of the principal earthquake is situated on the longer axis of the epicentral zone of the aftershocks, along its edge, although in some cases at the center of the zone. If it is assumed that the field of stresses forming the relief and the field of stresses causing earthquakes are the same, the direction of the horizontal component of the null vector should coincide.

UDC: 550.34+550.834

Card 1/2

L 20468.44

ACC NR: AP6012053

cide with the strike of the orogenic lines and this situation apparently actually is observed. As shown by the table and figure accompanying the text, the orientation of the larger axes of the epicentral zones of aftershocks of a number of earthquakes and the horizontal components of the null vectors, determined for the foci of the main shocks, approximately coincide. With the possibility of errors taken into account, the agreement of these directions is good. There is a probable relationship between these earthquake characteristics which can give new data for judging the mechanical processes occurring at the earthquake focus. Orig. art. has: 1 figure and 1 table. [JPRS]

SUB CODE: 08, 20 / SUBM DATE: 15Feb65 / ORIG REF: 010 / OTH REF: 007

Card 2/2 *APC*

KOLESNIKOV, P.A.; PETROCHENKO, Ye.I.; PSHENOVA, K.V.; ZORE, S.V.

Phenol substances of wheat roots as components of oxidative systems.
Biokhimiia 30 no.2:368-374 Mr-Apr '65. (MIRA 18:7)

1. Institut biokhimiia imeni Bakha AN SSSR, Moskva.

S/169/61/000/011/008/065
D228/D304

AUTHOR: Pshennikov, K.V.

TITLE: The approximate estimation of the energy of recurrent shocks of the mid-Baykal earthquake of August 29, 1959

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 11, 1961, 15.
abstract 11A143 (Geologiya i geofizika, no. 2, 1961,
117 - 120)

TEXT: The formula of Golitsin which he applied for surface waves was first used for determining the energy of recurrent shocks of the mid-Baykal earthquake. The coefficient of attenuation which enters into this formula appeared to be substantially different for various waves. Then, from observations at 5 fixed seismic stations in the Baykal region, the coefficient of attenuation was calculated from the formula containing the ratio of the amplitudes of the maximum ground displacements. It was found that the coefficient of attenuation changes strongly on moving from one pair of stations to another. In subsequent calculations the coefficient of attenuation

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The approximate estimation of ...

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D228/D304

was assumed to equal zero. The energy was calculated for 695 recurrent shocks recorded by the Irkutsk station; the two strongest shocks had an energy of 1020 ± 0.5 ergs; judging from the graph the seismic activity clearly diminishes in time, but with no strict pattern. [Abstractor's note: Complete translation]. ✓

Card 2/2

GOLENETSKIY, S. I.; PSHENNIKOV, K. V.

The earthquake of February 7, 1957 in northern Mongolia. Biul. Sov.
po seism. no.10:98-107 '60. (MIRA 13:11)

1. Seysmicheskaya stantsiya, Irkutsk.
(Mongolia--Earthquake, 1957)

S/169/62/000/002/016/072
D228/D301

AUTHOR: Pshennikov, K. V.

TITLE: Lg-waves from observations at Irkutsk

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 2, 1962, 14. ab-
stract 2A107 (Geologiya i geofizika, no. 5, 1961,
87-90)

TEXT: Clear arrivals of short-period surface Lg-waves with periods from 3 to 12 sec were detected on seismograms of the Irkutsk seismic station with the recordings of earthquakes that occurred in the area of Kamchatka, the Kurile Islands, Japan, Taiwan Island, Southern China, Central Asia and Iran. The average values of the Lg-wave velocities (from 3.12 to 4.24 km/sec) are cited. Direct dispersion is exposed in the interval of periods from 6 to 10 sec. The presence of clear Lg-wave arrivals allows assumptions to be made about the crust's continental structure in the Bering Sea (northern part), the Okhotsk Sea, and the Sea of Japan. It is supposed that the mechanism of the focus of the earthquake and its depth.

Card 1/2

Lg-waves from ...

S/169/62/000/002/016/072
D228/D301

influences the origin of Lg-waves, since there are Lg-wave arrivals on all the recordings of earthquakes of the same areas. / Abstracter's note: Complete translation. 7

Card 2/2

PSHENNIKOV, Konstantin Vasil'yevich; TRESKOV, A.A., doktor fiz.-

matem. nauk, otv. red.

[Mechanism of the occurrence of aftershocks and the
inelastic properties of the earth's crust] Mekhanizm voz-
niknoveniia aftershokov i neuprugie svoistva zemnoi kory.
Moskva, Nauka, 1965. 86 p. (MIRA 18:4)

ACCESSION NR: AP4023176

S/0210/64/000/001/0135/0140

AUTHOR: Pshennikov, K. V.

TITLE: The problem of aftershocks

SOURCE: Geologiya i geofizika, no. 1, 1964, 135-140

TOPIC TAGS: earthquake, aftershock, viscoelastic property, focus, earthquake focus, relaxation time, fracture, earth's crust

ABSTRACT: This paper presents a discussion of some patterns observed in aftershocks in the region of Baikal and Mongolia, previously outlined by the author (Nekotoryye osobennosti povtornykh tolchkov zemletryaseniya Pribaykal'ya i Mongolii. Geologiya i geofizika, No. 4, 1962). In the present paper he assumes that the crust possesses viscoelastic properties and that its behavior may be described by a Maxwellian equation. From this he derives an expression for relaxation time of strains in the hypocentral zone. The results agree with actual observations on some well-documented earthquakes: the California earthquake of 21 July 1952 and the Middle Baikal earthquake of 29 August 1959. The average relaxation time for the first was 92.4 days, for the second 84.0 days. The author

Card 1/2

ACCESSION NR: AP4023176

notes that aftershocks are missing from weak earthquakes ($M < 5$) and suggests that the physical processes at the focus are different for strong and weak earthquakes. If fractures and other inhomogeneities exist in certain parts of the earth's crust, the critical limit of strain may not be reached, since displacement occurs earlier along the existing fracture system. Earthquakes in such regions are not accompanied by the formation of inelastic zones and are, consequently, not followed by aftershocks. "In conclusion, I express my thanks to N. S. Borovik, who participated in making the calculations." Orig. art. has: 2 figures and 9 formulas.

ASSOCIATION: Institut zemnoy kory* Sibirskogo otdeleniya AN SSSR, Irkutsk
(Institute of the Earth's Crust Siberian Department AN SSSR)

SUBMITTED: 11Jul63

DATE ACQ: 10Apr64

ENCL: 00

SUB CODE: AS

NO REF SOV: 005

OTHER: 005

Card 2/2

PSHEINIKOV, K.V.

Angles of emergence of longitudinal waves in distant earthquakes based on observations made in seismic stations of the Baikal region. Geol. i geofiz. no.5:103-111 '60.

(MIRA 13:9)

1. Seysmicheskaya stantsiya "Irkutsk" AN SSSR.
(Baikal region--Seismic prospecting)

PSHENNIKOV, K. V.

"Seismicity of Pribaykal'ye." Cand Phys-Math Sci, Irkutsk State, Irkutsk,
1954. (KL No 2, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher
Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

S/210/62/000/004/001/001

1028/1228

AUTHOR: Pshennikov, K. V. _____

TITLE: Some features of repeated earth tremors in the Baykal' region and Mongolia

PERIODICAL: Geologiya i geofizika, no. 4, 1962, 119-121

TEXT: This paper treats the problem of a causally connected series of earthquakes. The energy of the maximum aftershock was on the average three times less than the energy of the main earthquake. The ratio E/V between the energy of the main earthquake and the volume of the zone of seismic centers of aftershocks was constant. The centers of the aftershocks were localized within the limits of the seismic center of the main earthquake (defined as the zone in which, as a result of the earthquake, non-elastic deformations and ruptures occurred). These results indicate that the aftershocks were of a secondary character and were connected with the elastic reaction of the earth's crust: they usually appeared after strong earthquakes ($M = 5$), in which not all of the accumulated elastic energy was released during the main tremor. There is 1 figure and 2 tables. The main English-language reference is Tokuji Utsu. Magnitude of Earthquakes and Occurrence of their Aftershocks. Zisin (Journal of the Seismological Society of Japan), vol. 10, No. 1, 1957. ✓

Card 1/2

Some feature of repeated earthquake tremors in the...

S/210/62/000/004/001/001
1028/1228

ASSOCIATION: Vostochno-Sibirskiy geologicheskiy institut Sibirskogo otdeleniya AN SSSR (East-Siberian
Geological Institute of the Siberian Division of the AS USSR) Irkutsk ✓

SUBMITTED: July 24, 1961

Card 2/2

ACCESSION NR: AP4041182

S/0049/64/000/006/0894/0898

AUTHOR: Pshennikov, K. V.

TITLE: Changes in the velocity of seismic waves in the hypocentral zone of aftershocks

SOURCE: AN SSSR. Izv. Seriya geofizicheskaya, no. 6, 1964, 894-898

TOPIC TAGS: geophysics, seismology, seismicity, seismic wave, seismic aftershock

ABSTRACT: A study has been made of the change of velocities of seismic waves in the hypocentral zone of aftershocks. Data used were for the aftershocks of the Central Baykal earthquake of 29 August 1959. The seismic stations then existing are shown in Fig. 1 of the Enclosure, as well as the positions of four seismic stations established immediately thereafter. The recorded data clearly suggested that there was a change in the ratio of the velocities of longitudinal and transverse waves in the hypocentral zone of the aftershocks. Wadati graphs were used in an effort to clarify this problem. It was found that contrary to prevailing opinion the presence of a local zone with anomalous velocity values around an earthquake focus does not change the slope of the Wadati curve, provided that all the observing stations are situated

Card 1/4

ACCESSION NR: AP4041182

outside its limits. The slope of the Wadati curve changes only if all or part of the stations are situated within the zone of anomalous velocities. In actual cases the zone of anomalous velocities will not have spherical symmetry; it may be quite complex, so that the hypocentral distances traveled by the waves will be different for stations with different azimuths. An example is considered which is as close as possible to real conditions. Change in velocity in the hypocentral zone of aftershocks obviously causes an error in determination of hypocenters, since it usually is assumed that velocity is constant within the entire region. This is illustrated by analysis of a fictitious earthquake. A small error in velocity results in a significant error in location of the epicenter. It must be postulated that there is a change in the velocities of seismic waves in the hypocentral zone of aftershocks. The value cannot be determined, but it must be significant and the velocities of the longitudinal and transverse waves should change nonproportionally. These assumptions do not agree with the theory of elasticity but they do confirm the hypothesis that there is a change of the rheological properties of the medium at the focus of a strong earthquake and that for a long time there is, in the area, a zone with decreased elastic properties, whose presence is responsible for the development of aftershocks. Orig. art. has: 5 figures and 1 table.

Card 2/4

ACCESSION NR: AP4041182

ASSOCIATION: Institut zemnoy kory, Sibirskoye otdeleniye, Akademiya nauk SSSR (Institute of the Earth's Crust, Siberian Division, Academy of Sciences USSR)

SUBMITTED: 16Jun63

DATE ACQ:

ENCL: 01

SUB CODE: ES

NO REF SOV: 006

OTHER: 000

Card 3/4

ACCESSION NR: AP4041182

ENCLOSURE: 01/

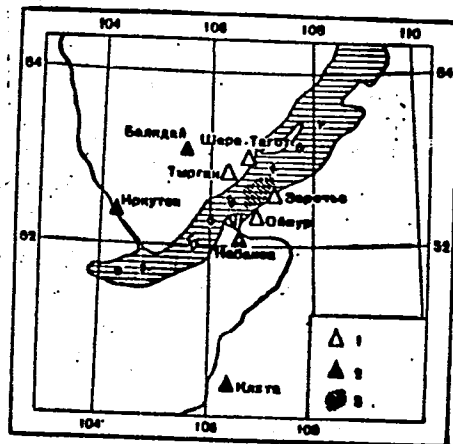


Fig. 1. Location of seismic stations whose observations were used in investigation of aftershocks:

- 1 — temporary stations; 2 — permanent stations;
- 3 — epicentral zone of aftershocks.

Card 4/4

57/61-01-55-64/AOS

[illegible]

23

PSHENNIKOV, K.V.; FOMINA, Ye.V.

Energy characteristics of earthquakes in the Lake Baikal
region in 1952-1961. Trudy Inst. zem. kory SO AN SSSR no.18:
11-14 '64. (MIRA 18:11)

PSHENNIKOV, K.V.

Conditions governing the excitation and distribution of
seismic waves in the hypocenter zone of aftershocks. Trudy
Inst. zem. kory SO AN SSSR no.18:37-40 '64. (MIRA 18:11)

ACC NR: AT6036915

SOURCE CODE: UR/3235/64/000/018/0037/0040

AUTHOR: Pshennikov, K. V.

ORG: none

TITLE: Conditions of generation and propagation of seismic waves in the hypocentral zone of aftershocks

SOURCE: AN SSSR. Sibirskoye otdeleniye. Institut zemnoy kory. Trudy, no. 18, 1964. Voprosy seysmichnosti Sibiri (Problems in the seismicity of Siberia), 37-40

TOPIC TAGS: earthquake, aftershock, focal depth, seismic wave, seismicity, seismological station, hypocenter

ABSTRACT: The seismograms of the aftershocks of the Central Baykal earthquake of 29 August 1959 were analyzed in order to determine the effect of changes of the elastic properties at and in the vicinity of the focus of the main shock on the generation and propagation of seismic waves from the aftershocks. The mean ratios of amplitudes of direct shear waves with direct longitudinal waves (A_s/A_p) were determined from 221 seismograms from 3 stations for which the mechanism of first motion was established. It

Card 1/2

ACC NR: AT6036915

was found that 60% of aftershock epicenters with $A_S/A_P \leq 5$, i.e., epicenters for which the intensity of shear waves is lower than normal, are concentrated within a small area of the epicentral zone of the aftershocks. This area was interpreted as being a zone in which shear wave generation is weaker or attenuation is greater than in other parts of the epicentral zone of aftershocks. A relatively equal distribution of epicenters of aftershocks with sufficiently high intensity shear waves ($5 < A_S/A_P \leq 10$, and $A_S/A_P > 10$) indicates that the area for which $A_S/A_P \leq 5$ has definite boundaries when projected not only onto a horizontal, but also onto a vertical plane and that normal intensity shear waves are generated by aftershocks with hypocenters above and below this area. The relative decrease in amplitude of shear waves from aftershocks was attributed to excitation of seismic waves in a zone with lower than normal elastic properties and not to wave propagation conditions. The variation of the periods of shear waves from aftershocks was also investigated, however, no definite conclusions could be reached. Orig. art. has: 4 figures. [CS]

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 007 [WA 79-67-4]

Card 2/2

ACC NR: AT6028372

(N)

SOURCE CODE: UR/0000/65/000/000/0073/0084

AUTHOR: Misharina, L. A.; Pshennikov, K. V.

ORG: none

TITLE: Earth crust stress-relaxation process according to the earthquake investigations in the Baikal area and in Mongolia

SOURCE: International Geological Congress. 22d, New Delhi, 1964. Geologicheskiye rezul'taty prikladnoy geofiziki (Geological results of applied geophysics); doklady sovetskikh geologov, problema 2. Moscow, Izd-vo Nedra, 1965, 75-84

TOPIC TAGS: stress field, earthquake, after shock, viscosity, geological structure, seismology, Earth crust / *BAIKAL, MONGOLIA*

ABSTRACT: Investigation of stress fields in the Baikal area and adjacent regions through observations of both intense and relatively weak earthquakes makes it possible to single out two adjoining zones, differing in type of stress fields and separated by a distinct boundary. Horizontal tension stresses and vertical pressure stresses are found to the northeast of this boundary while horizontal pressure stresses are perpendicular to the geological structures. The investigations confirm the assumption that the Earth's crust has stable stress fields which cause the stresses observed at the foci of both intense and weak earthquakes. The aftershocks

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ACC NR: AT6028372

of strong earthquakes generated by remanent stresses made it possible to assume that the Earth's crust in the focal zone of strong earthquakes is nonelastic. Orig. art. has: 6 formulas, 3 figures, and 1 table.

SUB CODE: 08/ SUBM DATE: 06Jan65/ ORIG REF: 004/ OTH REF: 004

Card 2/2

PSHENNIKOV, N.V.; ALESHKIN, V.K., spetsred.; MURASHEVA, O.I., red.; GOTLIB,
E.M., tekhn.red.

[Mechanized cutting at macaroni industry enterprises] Mekhanicheskaya
reska na predpriyatiyakh makaronnoi promyshlennosti. Moskva, Pishche-
promizdat, 1957. 38 p. (MIRA 12:5)
(Cutting machines) (Macaroni)

NUR'YAKHMETOVA, A.N.; PSHENNIKOVA, L.E.; YUR'YEVA, V.L.

Sanitary and hygienic evaluation of the water supply of the city of Pechora in Pskov Province. Trudy LSGMI no.68:173-177 '61.

(MIRA 15:11)

1. Kafedra kommunal'noy gigiyeny Leningradskogo sanitarnogigiyenicheskogo meditsinskogo instituta (zav. kafedroy - prof. A.I.Shtreys).

(PECHORA—WATER SUPPLY)

MEYERSON, F.Z., MANUKHIN, B.N., PSHENNIKOVA, M.Q., ROZANOVA, L.S.

"On the intermediate metabolism of the myocardium in compensatory hyperfunction and hypertrophy of the heart."

Report submitted, but not presented at the 22nd International
Congress of Physiological Sciences.
Leiden, the Netherlands 10-17 Sep 1962

MEYERSON, F.Z.; PSHENNIKOVA, M.G.; RAMENSKAYA, G.P.; CHERNYSHEVA, G.V.

Experimental prophylaxis of some changes developing in the myocardium during chronic heart failures. Dokl. AN SSSR 141 no.2: 509-512 N '61. (MIRA 14:11)

1. Institut normal'noy i patologicheskoy fiziologii Akademii meditsinskikh nauk SSSR. Predstavleno akademikom L.S.Shtern.
(HEART FAILURE)

PSHENNIKOVA, M.G.; GODIN, V.P.

Change in the sodium balance in rats subjected to
experimental heart failure. Dokl. AN SSSR 154 no.2:
480-483 Ja'64. (MIRA 17:2)

1. Institut normal'noy i patologicheskoy fiziologii AMN
SSSR. Predstavleno akademikom A.N. Bakulevym.

MEYERSON, F.Z.; MALOV, G.A.; PSHENNIKOVA, M.G.; KALEBINA, N.S.

Correlation in the intensity of synthesis and the breakdown
of protein in the myocardium in heart hyperfunction. Dokl.
AN SSSR 154 no. 3:738-741 Ja '64. (MIRA 17:5)

1. Institut normal'noy i patologicheskoy fiziologii AMN SSSR
i Institut serdechno-sosudistoy khirurgii AMN SSSR. Predstavleno
akademikom A.N.Bakulevym.

MEYERSON, F.Z.; ZALETAYEVA, T.A.; LAGUCHEV, S.S.; PSHENNIKOVA, M.G.

Correlation of the mass of energy-producing and functioning structures in the adaptation process of the differentiated cell to a prolonged increase in functional level. Dokl. AN SSSR 157 no.3:668-672 J1 '64. (MIRA 17:7)

1. Institut normal'noy i patologicheskoy fiziologii AMN SSSR i Institut eksperimental'noy biologii AMN SSSR. Predstavleno akademikom A.N. Belozerskim.

PUZNOVICH, L.S.; PSHENNIKOV, V.I.; STOROZHEV, V.M.; MEDVEDEV, T.I..

Using natural sodium brine to cool industrial liquids. Prom.
energ. 12 no.8:18 Ag '57. (MIRA 10:10)
(Soda industry) (Cooling)

PSHENNIKOVA, M. G., Cand Biol Sci -- (diss) "Functional changes of *the*
neuromuscular apparatus under local nerve stimulation by X-rays."
Mos, 1958. 19 pp (Mos Order of Lenin and Order of Labor Red Banner
State Univ im M. V. Lomonosov, Biol-Soil Faculty, Chair of Biophysics),
110 copies (KL, 17-58, 106)

-19-

KIRZON, M.V.; PSHENNIKOVA, M.G.

Propagation along the nerve of nonimpulsive influences from a region irradiated by X rays [with summary in English]. Biofizika 2 no.6: 686-697 '57. (MIRA 10:12)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.
(X RAYS--PHYSIOLOGICAL EFFECT) (NERVES)

PSHENNIKOVA, M. G.; ROZANOVA, L. S.

Significance of the form of the impulse as one of the parameters
of AN electrical stimulus. Nov. med. tekhn. no.2:38-46 '61.
(MIRA 14:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut meditsinskikh
instrumentov i oborudovaniya.

(ELECTROPHYSIOLOGY)

Country : USSR
 Category : Human and Animal Physiology. Nerve and Muscle Physiology. F
 Abs. Jour. : Ref Zhur-Biol., No 23, 1958, 106745
 Author : Kirzon, M. B.; Pshennikova, M. G.
 Institut. : The spreading along the Nerve of non-
 Title : Impulse Influences Originating from
 the Area of X-rays' Action.
 Orig Pub. : Biofizika, 1957, 2, No 6, 686-697
 Abstract : A nerve sector (8-9 cm long) of a common nerve
 and muscle specimen of a frog was subjected to
 a 400-450 r/r X-ray radiation, lasting 5, 10,
 and 20 minutes. Changes in nerve excitability
 and conductivity were recorded by usual myo-
 graphic methods. The electrodes which were used
 as stimulants, were placed proximally and dis-
 tally to the irradiated nerve sector. Progres-
 sive diminution of conductivity was observed in
 the irradiated sector. Two influence phases of

Country : USSR
 Category: : Human and Animal Physiology. T
 : Nerve and Muscle Physiology.
 Abs. Jour. : Ref Zhur-Biol., No 23, 1955, 106745
 Author :
 Institut. :
 Title :

Orig. Pub. :

Abstract :
 (cont) the irradiated nerve sector upon the non-irradiated nerve sector were observed. The first short-lasting phase was characterized by excitability becoming more intensive in the distal and proximal nerve sectors (distally, at a distance of 25 cm from the irradiation area). The second phase was characterized by a progressive diminution of muscle responses which became the more substantial the stronger were the*stimulants of the

Card: 2/3

*test

Country	: USSR	
Category	: Human and Animal Physiology. Nerve and Muscle Physiology.	T
Abs. Jour.	: Ref Zhur-Biol., No 23, 1958, 106745	
Author	:	
Institut.	:	
Title	:	
Orig Pub.	:	
Abstract (cont)	:	test. It is assumed that muscle responses grow weaker as a result of decreasing functional ability of nerve and muscle synapses (or of the muscle itself). Such decreases develop as a response to nonimpulsive influences originating at the irradiated nerve sector. -- Ye. A. Zhirmunskaya

YEVDOKIMOV, I.I.; ALEKSEYEV, V.D.; ASHIKHMIN, A.K.; BAYEV, N.V.; BEGLAR'YAN, P.A.; BYCHKOV, I.A.; VESLOVA, Ye.T.; VYZHEKHOVSKAYA, M.F.; GURETSKIY, S.A.; DEMIDOV, I.M.; YESIPOV, Ye.P.; ZHUKOV, V.D.; ZELINSKIY, M.G.; ZOL'NIKOV, F.T.; ZOLOTOVA, L.I.; KIVIN, A.N.; KOMARNITSKIY, Yu.A.; KONSTANTINOV, A.N.; KUL'CHITSKAYA, A.K.; MAKSIMENKO, I.I.; MELENT'YEV, A.A.; MOROZOV, I.G.; MURZINOV, M.I.; OZEMBLOVSKIY, Ch.S.; OSTRYAKOV, K.I.; PANINA, A.A.; PAVLOVSKIY, V.V.; PERMINOV, A.S.; PERSHIN, B.F.; PRONIN, S.F.; PSHENNYI, A.I.; POKROVSKIY, M.I.; RASPONOMAREV, Ye.A.; SEMIN, I.N.; SKLYAROV, Yu.N.; TIBABSHEV, A.I.; FARBEROV, Ya.D.; FEDOROV, G.P.; SHUL'GIN, Ya.S.; YAKIMOV, I.A.; VERINA, G.P., tekhn.red.

[Labor feats of railway workers; stories about the innovators]
Trudovye podvigi zheleznodorozhnikov; rasskazy o novatorakh. Moskva,
Gos.transp.zhel-dor.izd-vo, 1959. 267 p. (MIRA 12:9)
(Railroads) (Socialist competition)

Structure of proteins. IV. Benzoylated protein A and **protein B** from *Bacillus* 2, 111-26 (1937). Glutamic acid from wheat and cucurbitum (II) from pumpkin seeds are attacked by NaOH with liberation of reactive groups, but I is more resistant than II and the groups liberated in I are easily eliminated after benzoylation, whereas those liberated in II are not. In benzoylated I and II Ia is found in 2 (possibly 3) different ways. The benzoylated arginine, histidine and tyrosine residues are eliminated by cold 0.1 N NaOH. C. A. C.

Laboratory of Plant Biochemistry, Moscow State University

ASME-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS		PROCESSED AND PROPERTIES INDEX		3RD AND 4TH ORDERS	
<div style="text-align: right; font-weight: bold;">CA</div>	<p>the poisoning of polyphenoloxidase of tobacco by cyanides and carbon monoxide. A. I. Smirnov, K. V. Pshennova and P. G. Asnaev. <i>Compt. rend. acad. sci. U. R. S. S. 28, 340-3</i> (1940) (in German). -- Expts. were made to elucidate the character and effect of tobacco enzymes, especially on the basis of their behavior toward cyanides and CO, and to investigate the possibility of the reactivation of the enzyme poisoned by cyanide, with the help of Cu and other metallic salts (CuSO₄, ZnSO₄, NiSO₄, MnSO₄, MnCl₂, FeSO₄, FeCl₃), with a view to differentiating between genuine oxidases and dehydrogenases, and to det. the differences within the group of the former. The activity of the enzyme was detd. by the manometric method (quantity of O absorbed). The results (tabulated) showed that the polyphenoloxidase of tobacco reacts toward CO much as does the enzyme of potato and mushroom (cf. Keilin and Mann, <i>C. A.</i> 32, 6269) in regard both to its susceptibility and its inability to react in the presence of light. The restoration of phenolase activity of tobacco leaves by MnSO₄ having been observed only in unpurified preps., no valid conclusions can as yet be drawn as to possible differences, in this respect, between the tobacco and potato enzymes. 10 references. A. H. K.</p>	<div style="text-align: right; font-weight: bold;">11A</div>	<p>Dokl. Ak Nauk SSSR, 28, No. 4, 1940</p>		
<p>Biochem. Inst., Acad. Scholars; Cathedra for Treatment Crude Tobacco Krasnodar.</p>					

1ST AND 2ND ORDERS																									
PROCESSES AND PROPERTIES INDEX																									
<p>CA</p> <p>Substrate specificity of tobacco polyphenoloxidase. A. I. Smirnov and K. V. Pshenopaya. <i>Biokhimiya</i> 6, 20 36 (in English, 36) (1947); cf. C. A. 34, 4764. Tobacco polyphenoloxidase (I), responsible for the O consumption of tobacco during fermentation, readily oxidizes hydro- quinone (II). Catechol and resorcinol inhibit, and pyro- quinone (III). Tannic acid totally suppresses its action. The action of I is depressed by monophenols. Quinic acid (III) strongly inhibits and caffeic acid (IV) enhances the ac- tion of I. <i>Chlorogenic acid</i>, being a depside of III and IV, is oxidized as easily as II but less readily than IV, owing to the marked inhibitive effect of III. The differences in the action of I on various phenols added to an aq. suspension of tobacco, result from the unequal stability of the bonds between the active group of the enzyme and the substrates. The arising <i>o</i>-, <i>m</i>- and <i>p</i>-quinones have different effects on the action of I owing to the unequal rates of their reduction in the substrate. T. Laanes</p>																									
<p>ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION</p> <p>1ST AND 2ND ORDERS</p> <p>1ST AND 2ND ORDERS</p>																									

PSHENNOVA, K. V.

"The Respiratory Metabolism and Enzymic Activity of the Wheat Kernel during Ripening," A. I. Smirnov, Z. S. Bronoviytskaya, K. V. Pshennova, S. D. Chigirev, and E. N. Ushakova, Biokhimiya 8, pp 149-57 (1943)
(SEE: Inst. Insect/Fungi. in Ya. V. Samoylov)

SO: U-237/49, 8 April 1949

Inst. of Biochemistry, AS of the USSR.

PSHENOVA, K. V.

"Mechanism of Wheat Injury by Eurygaster Integriceps," Dok. AN, 39, No. 1, 1943.

Inst., Biochemistry im. A. N. Bakh, Dept. Biol. Sci., AS.

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSES AND PROPERTIES INDEX																																																			
<p>(A)</p>																										<p>12</p>																									
<p>Proteolysis in grains affected with <i>Eurygaster integriceps</i>. V. L. Kretnovich, K. V. Ilyanova and A. A. Bantel. <i>Doklady Akad. Nauk S. S. R.</i> 40, 35-8(1943); <i>Compt. rend. acad. sci. U. R. S. S.</i> 40, 30-2(1943)(in English). <i>Abstr.</i> tests for tyrosine, in free and peptide form, in expts. from grain punctured by <i>Eurygaster integriceps</i> (I) indicate that I excretes a protease of the trypsin group. Samples of normal flour were mixed with aq. exts. from grain damaged by I, and with various glycerol buffer solns. made up to different pH values. After standing at 20° for 2 hrs., the dough samples were tested for extensibility of the gluten. Acidulation of the dough samples inhibited protein splitting by the protease derived from I. Max. protein splitting was observed at pH 6.0.</p>																																																			
<p>ASAC-5LA METALLURGICAL LITERATURE CLASSIFICATION</p>																																																			
<p>REMARKS</p>																																																			

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSES AND PROPERTIES INDEX																																																			
<p>CA</p> <p>11A</p> <p>Lipoxidase. D. M. Mikhlin and K. V. Pshennaya (Bach. Biochem. Inst., Moscow). <i>Trudy Akad. Nauk SSSR</i> 11: 167-16 (1940); cf. <i>C.A.</i> 36, 10539. - It is postulated that lipoxidase contains unsatd. compds. which form unstable peroxides with the O of the air. From these unstable peroxides, the O is then transferred to the unsatd. acids which have the double bond in the 9-10 position. Lipoxidase is irreversibly inactivated to the extent of 75% of its activity by dialysis. Treatment of the enzyme with I completely inactivates it; practically the same effect is produced by permanganate or quinone. Diphenylamine and hydroxyquinoline, which inhibit oxidative chain reactions, also slow up the enzymic oxidation of linoleic acid. H_2O_2 in small aunts. is formed during the action of lipoxidase. H. Priestley</p>																																																			
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																																																			
<p>1ST AND 2ND ORDERS</p>																																																			
<p>3RD AND 4TH ORDERS</p>																																																			

1ST AND 2ND ORDER		PROCESSING AND PROPERTY INDEX		3RD AND 4TH ORDER	
CA				11a	
<p>The mechanism of lipoxidase action. D. M. Mikhlin and K. M. Babanov (Bach Biochem. Inst., Moscow). <i>Biokhimiya</i> 13, 76-8(1948); cf. C.A. 41, 2762d.—As is known, the lipoxidase system consists of two components, a lipoxidase, and an "activating enzyme" (C.A. 41, 1263a). The "activating enzyme" is capable of absorbing large amts. of O_2. Lipoxidase can also absorb O_2, but to a lesser extent. O_2 absorption by both components of the lipoxidase system is increased tremendously by the addn. of minute amts. of dibenzoyl peroxide, which serves as a promoter for chain reactions. The formation of H_2O_2 during the autoxidation of the lipoxide system has been confirmed. In the enzymic oxidation of unsatd. fatty acids, the first step is the formation of a peroxide by the enzyme itself; this is followed by the formation of a stable peroxide of the unsatd. fatty acid. H. Priestley</p>					
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>					
1ST AND 2ND ORDER		3RD AND 4TH ORDER		5TH AND 6TH ORDER	
1ST AND 2ND ORDER		3RD AND 4TH ORDER		5TH AND 6TH ORDER	

CA

1/a

Oxidation of amino acids by the lipoxidase system. D.
M. Mikhlin and K. V. Izbeyeva. *Russkimiya* 14, 141-1
(1949); cf. *C.A.* 42, 7805A. --Lipoxidase is capable of ox-
idizing not only unsatd. acids, but also secondary meta-
bolic products, like carotenoids, polyphenols, chlorophyll,
ascorbic acid, dihydroxyphenylalanine, and cytochrome c.
These substances are oxidized by the unsatd. acid perox-
ides or intermediate free radicals. Amino acids are not
oxidized by lipoxidase and linoleic acid. But if a poly-
phenol like catechol or hydroquinone is added to the
lipoxidase system, then oxidation of glycine, alanine, leu-
cine, and glutamic acid takes place, with the formation of
NH₃ and CO₂. Keto acids are formed. Only about 15%
of the N forms NH₃; the remainder may be in the lipide
fraction. H. Priestley

Inst. Priobcheny, im. A.N. Bakh, AS USSR

CA

110

Oxidation enzymes and the accumulation of rubber in the roots of *kok-saghyz*. D. M. Mikhlin and K. V. Pshennova (Bakh Biochem. Inst., Moscow). *Russkimi* 18, 3-11 (1950).—The activities of polyphenoloxidase, peroxidase, and catalase are very slight in the root of *kok-saghyz*. The activities of peroxidase and of catalase decrease with increasing intensity of rubber synthesis in the root. The activity of polyphenoloxidase becomes more pronounced in those parts of the root where rubber accumulation is more intense. In the latex, peroxidase is absent, and catalase is present in only minute amounts, but the polyphenoloxidase activity is many times greater than the activity of this enzyme in the root. H. Priestley

1951

Botany 11-D

CP

Vacuum infiltration method in the study of root rubber-bearers. D. M. Mikhlin and K. V. Pashchenova (A. N. Bakh Biochem. Inst., Moscow). *Doklady Akad. Nauk S.S.S.R.* **85**, 651-5 (1952); cf. Kursanov, C. I. **31**, 1456.
-Vacuum infiltration technique applied to kok-saghyz roots permits a study of transformations of metabolites in such plants. Thus, introduced AcOH is utilized and consumed. Infiltration of NaNO_3 leads to deposition of the salt in ams. that progressively decline with increased distance from the neck of the root. Infiltrated AcOH disappears within 5 days and its connection, if any, with rubber formation is unknown. Max. carbohydrate level in this root is found some 10-12 cm. from the root neck; lateral differences do not seem to be great (2-15%).
G. M. Kosolapoff

1. MIKHLIN, D.M., PSHENOVA, K.V.
2. USSR (600)
4. Kok-Saghyz
7. Polyphenol compounds in kok-saghyz. Biokhimiia No.1 1953.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

PSHENOVA, K. V.

Rubber also.

V-3: Nov. 1953

Natural Latex

4375. Polyphenolic compounds of *kok-saghyz*.
D. M. MIKHILIN and K. V. PSHEKNOVA. *Biokhimiya*,
1953, 18, 24-8; *Chem. Abs.*, 1953, 47, 7899. Most
of the polyphenoloxidase activity of the root is
concentrated in the latex. The root was extracted
for 50 hr. with chloroform/benzene mixture to
remove tar, rubber, pigment, lipids, and other
substances. Another extraction for 40 hr. with ethyl-
acetate removed 1.46% to 1.85% of polyphenolic
compounds. These were separated into 4 fractions
chromatographically, and their chemical reactions
indicated that they are tannins of the catechol
type and are present in an oxidised and condensed
form. The leaves contained 10.5% and the latex
2% of these compounds. The latex probably also
contains antioxidants, since the ethyl acetate
extract oxidises and condenses rapidly. 222C321

Math
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MT
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MIKHLIN, D.M.; PSHENOVA, K.V.

Compounds of copper and iron in plants. Doklady Akad. Nauk S.S.S.R.
90 433-5 '53. (MIRA 6:5)
(CA 47 no.17:8839 '53)

1. A.N.Bakh Biochem. Inst., Moscow.

PSHENOVA, K. V.

USSR

Interaction of oxidase systems. D. M. Mikhlin and K. V. Pshenova (A. N. Bakh Inst. Biochem., Acad. Sci. U.S.S.R., Moscow). *Doklady Akad. Nauk S.S.S.R.* 101, 1318-16 (1955).—Study of O uptake by manometric technique in the case of the combined presence of polyphenol oxidase and cytochrome systems showed mutual inactivation. The isolated plant cytochrome oxidase shows a 2-3 times greater effect than a suspension of barley sprouts which contain cytochrome oxidase. Cytochrome c itself added to the polyphenol oxidase system does not affect O uptake, while addn. of pyrocatechol to the cytochrome system slightly raises O uptake. Polyphenol oxidase system inactivates the glucose oxidase system. Such inactivation by the products of oxidation of polyphenols is not connected with oxidation of SH groups.
G. M. Kosolapoff

PSHENOVA, K. V.

✓ The oxidases of plants synthesizing fatty esters. K. V. Pshenova (A. N. Bakh Inst. Biochem., Acad. Sci. U.S.S.R., Moscow). *Biokhimiya* 21, 270-87(1956).—Studies were made of the oxidases of the coriander and of peppermint grass. In 8-10-day-old coriander sprouts cytochrome oxidase was present. In the leaves and roots of the full-grown coriander and in the leaves and buds of the peppermint plant cytochrome oxidase was not found. The addition of cytochrome c lowers their capacity for O₂ absorption. During the vegetative period polyphenoloxidase is formed in the coriander and in the peppermint plant. This enzyme is especially active in the latter. In the leaves and flower parts of the coriander a specific polyphenoloxidase may be present. In the green unripe seeds and in the roots of the coriander pyrocatechol is oxidized more effectively than hydroquinone. In the dormant seeds

polyphenoloxidase of slight activity was found present. To protect the polyphenoloxidase from becoming inactivated, substances were added which form a union with the quinones. Semicarbazide, cysteine, and serum albumin depress the activity of polyphenoloxidase of the coriander. Semicarbazide lowers the O₂ absorption by the peppermint plant during the first hr., thereafter it stimulates the oxidation of pyrocatechol. Cysteine inactivates the polyphenoloxidase of the peppermint plant. Serum albumin exerts a slight protective effect on this enzyme during the first hr. of the expt. Ascorbic acid is oxidized intensely by the tissues of both plant varieties, and especially by the root tissues.

B. S. Levine

PSHENOVA, K. V., Cand of Bio Sci -- (diss) "Final oxidizing systems of certain plants." Moscow, 1957, 25 pp (Institute of Biochemistry im A. N. Bakh, Academy of Sciences USSR) 110 copies (KL, 37-57, 102)

Pshenova K.V.

USSR/Physiology of Plants - Respiration and Metabolism.

I-2

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10402D

Author : Pshenova, K.V.

Inst : Institute of Biochemistry, Academy of Sciences USSR

Title : Final Oxidizing Systems of Some Plants.

Orig Pub : Avtoref. diss. kand. biol. n., In-t biokhimii Akad Nauk
SSSR, Moskva, 1957.

Abstract : No abstract.

Card 1/1

PSHENOVA, E.V.: KOMESHIKOV, P.A.

Interaction of lipoperoxides with the components of some oxidation systems. Biokhimiia 30 no.5:1059-1064 S-O '65.

L. Institut biokhimii imeni A.N.Bakha AN SSSR, Moskva.

(MIRA 18:10)

MUTUSKIN, A.A.; PSHENOVA, K.V.; KOLESNIKOV, P.A.

Biological role of the nonhemin iron of wheat germs. Dokl. AN SSSR
150 no.1:184-187 My '63. (MIRA 16:6)

1. Institut biokhimii im. A.N.Bakha AN SSSR. Predstavleno akademikom
A.I.Oparinym.

(Wheat germ) (Iron) (Hemins)

ROLESNIKOVA, K.V., ROLESNIKOV, P.A.

Lipoxygenase in wheat seedlings. Biokhimiia 26 no.6:1008-1012
M.D. 1961. (MIRA 15:6)

1. Institute of Biochemistry, Academy of Sciences of the
U.S.S.R., Moscow.

(LIPOXYDASE)
(WHEAT)

SMIRNOV, O.K.; LEVI, S.M.; Primali uchastiye: PSHENOVA, M.G.; IVANCHIKOVA, A.F.; KOCHNEVA, S.N.; STEPANOVA, T.K.; SHVADCHENKO, L.P.; AVERBAKH, K.O.

Relation between the structure of surface-active substances and their adsorptive capacity. Part 2: Esters of sulfo-succinic and sulfopropionic acid (Na-salts). Koll. zhur. 26 no.3:350-355 My-Je '64. (MIRA 17:9)

1. Nauchno-issledovatel'skiy kino-fotoinstitut i Institut organicheskikh poluproduktov i krasiteley, Moskva.

PSHENITSYNA, V. G.

Condensation products of aliphatic diamines and mono-carboxylic acids. I. P. Lossev, U. Ya. Fedotova, O. A. Shitker, and V. G. Pshenitsyna. U.S.S.R. 106,549, Aug. 23, 1957. Aliphatic diamines, e.g. hexamethylene diamine, are condensed with fatty acids contg. 5-9 C atoms and obtained by the oxidation of paraffins. The condensation products are suitable as stabilizers and softeners for poly(vinyl chloride) and polyamide resins. M. Hosh...

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PSHENTSOV, A.

On the road to reorganization. Sel'. stroi. 17 no.4:8-9 Ap '63.
(MIRA 16:7)

1. Glavnyy inzhener Saratovskoy oblastnoy mezhkolkhoznoy stroi-
tel'noy organizatsii.

(Saratov Province—Construction industry)

(Collective farms—Interfarm cooperation)

PSHENTSOVA, P. Ye.

Experience in the operation of 6L275 diesel engines. Rech. transp.
14 no. 8:28 Ag'55. (MLRA 8:11)

(Diesel engines)

PSHENYANIK, G.A., gvardii polkovnik, dots., kand. voyennykh nauk.

In the Kuban sky. Vest. vozd. fl. 40 no.2:47-54 P '58. (MIRA 11:2)
(Kuban--World War, 1939-1945--Aerial operations)

PSHENYANIK, G.A.

86-2-30/45

AUTHOR: Pshenyanik, G.A., GuCol, Docent, Candidate of Mil.
Sciences

TITLE: In the Skies Over Kuban' (V nebe Kubani)

PERIODICAL: Vestnik vozdushnogo flota, 1958, Nr 2, pp. 47-54 (USSR)

ABSTRACT: The article describes the course of combat events of the
Soviet Air Force on the North-Caucasus front from April
17 to June 7, 1943.

AVAILABLE: Library of Congress

Card 1/1

ACCESSION NR: AP4006579

S/0021/63/000/004/0427/0430

AUTHOR: Psheny*chny*y, B. M.

TITLE: Relation of the theory of graphs and the transportation problem

SOURCE: AN UkrRSR. Dopovidi, no. 4, 1963, 427-430

TOPIC TAGS: transportation problem, transportation problem solution algorithm, graph theory, Kirchhof equation, maximal tree, optimal graph cycle

ABSTRACT: In an earlier reference M. L. Tsetlin, DAN USSR 129, 747 (1959) the connection between the theory of graphs and the transport problem was established. This earlier work required that in order to optimize the entire plan (program), each possible cycle be individually optimized. In this paper an algorithm of the solution to the transport problem is constructed whereby only a portion of the cycles require verification as to their optimal nature. Kirchhof's equations and the theory of graphs are used in constructing the algorithm.

ASSOCIATION: O. Ts. AN UkrSSR

SUBMITTED: 25Jun62

DATE ACQ: 03May63

ENCL: 00

SUB CODE: MM

NO REF SOV: 002

OTHER: 001

Cards 1/1

S/021/62/000/009/003/008
D234/D308

AUTHOR: Pshenychnyy, B.M.

TITLE: An algorithm for finding optimum solutions of a certain class of problems in discrete space

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Dopovidi, no. 9, 1962, 1154 - 1157

TEXT: The author considers a discrete set K in an n -dimensional space, defined by

$x_i = \lambda_{1i}, \lambda_{2i}, \dots, \lambda_{ki}, i = 1, \dots, n. \lambda_{1i} < \lambda_{2i} < \dots < \lambda_{ki}^{(1)}$

and its subset G for which $y \in G$ if $x \in G, y \in K$ and $x \leq y$, G can be defined by

$$\varphi_i(x) \geq b_i, i = 1, \dots, m \quad (2)$$

where

$$\varphi_i(x) \leq \varphi_i(y) \quad (3)$$

when $x \leq y$. The problem consists in finding the minimum of $\varphi(x)$ in the set G . The algorithm begins with a point x^0 defined by

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An algorithm for finding optimum ...

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D234/D308

$$x_i^0 = \lambda_{ki}^i \quad x^0 \in G \quad (4)$$

a sequence of points

$$y_1 > y_2 > \dots > y_m > \dots, y_m \in G \quad (5)$$

is constructed for which

$$\varphi(y_1) > \varphi(y_2) > \dots > \varphi(y_m) > \dots \quad (6)$$

Two consecutive points y_m, y_{m+1} are adjacent (i.e. one coordinate assumes one of the nearest possible discrete values) and the sequence cannot end at a point having an adjacent one with a smaller value of $\varphi(x)$. The last point of the sequence (denoted by \bar{x}_0) has minimal value of $\varphi(x)$. New points are chosen with the aid of the coordinates of \bar{x}_0 and new sequences are constructed. All points with minimal properties are obtained in the process. The author points out that very many problems can be solved by this method, in particular, the problem of choosing the diameters of gas and water supply pipes.

Card 2/3

An algorithm for finding optimum ...

S/021/62/000/009/003/008 ..
D234/D308

ASSOCIATION: Obchyslyuval'nyy tsentr AN URSR (Computing Center,
AS UkrSSR)

PRESENTED: by Academician V.M. Hlushkov, AS UkrSSR

SUBMITTED: November 15, 1961

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